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SOMMAIRE.

pag.

J. C. KONINGSBERGER. Short Notes on Economical Entomology . . 1.

P. N. VAN KAMPEN. Kurze Notizen über Fische des Java Meeres, 3. Die Larve von *Megalops cyprinoides*, BROUSS. . . . . 10.

M. BARTELS. Zur Lebensweise von *Eonycteris spelaea*, DOBS. . . . 13.

M. BARTELS. Zum Vorkommen der Tüpfelkatze (*Felis viverrina*, BENN.) auf Java . . . . . 14.

P. A. OUWENS. List of Java Snakes in the Buitenzorg Zoological Museum. . . . . 16.

SHORT NOTES ON ECONOMICAL ENTOMOLOGY.

I. COCOS NUCIFERA.

1. *Hispidae.* A small beetle of the Hispid family has caused considerable damage in a coconut-plantation in the Eastern parts of Java, especially to the young folded up leaves. The beetle is extremely flat and therefore is able to penetrate between the leaflets, even when the latter are still strongly pressed together. It penetrates form both sides, so that it comes as well between the two halves of a leaflet as between two neighbouring leaflets.

In this position it eats the epidermis of one side and the green tissue of the leaf, avoiding the epidermis of the opposite side, which soon after dies off and remains as a yellowish semi-transparent layer.

While doing this, the females deposit their numerous small, yellow eggs, from which equally flat larvae develop themselves, which proceed in the same way as the adult ones. After being fullgrown, these larvae pupate in the same locality, from which a new generation of beetles will fly out within 8—10 days.

When a young leaf has been attacked by a considerable number of beetles and larvae, it either grows too feeble to unfold itself and soon dies off or, if still unfolding, it cannot be said to be of any value to the tree.

In case of the pest persisting for a long time, even the whole tree may be lost; generally however it is discovered in time by the yellow appearance of the young leaves, and the tree can be saved by cutting off and burning them.

The beetles have a length of ± 9 mM. and are very slender, the greatest breadth being 2 mM. As already remarked, they are extremely flat.

The head is yellowish brown and has a small spiniform prominence between the black antennæ. The prothorax has the same colour, its form is subquadrate with rather spinous angles.

On the elytra, which have a dark longitudinal streak on the middle, several punctured lines are visible.

The legs are short, with vigorous, swollen femora.

The fullgrown larva is somewhat longer than the beetle (10—11 mM.) and of a yellowish white colour. It too is flat and slender. The legs are very short and the abdomen, provided with an unhardened spine on both sides of each segment, ends in a chitinous plate which is produced into a short forceps-like appendage.

A similar appendage is also to be seen in the pupæ, whose wingsheaths stand out more or less from the body.

2. *Brachartona catoxantha*, HAMPS. This is a small moth, belonging to the family *Zygaenidæ*. With expanded wings, it measures only 14—15 mM. „Upperside uniform brown; frons and palpi yellow, the former with a black spot at middle; underside of the thorax, abdomen and the legs yellow. Fore wing brown below, with yellow patches on the costa at base and apex; hind wing brown; the costal area yellow, the veins on it black" (HAMPSON, *Moths of India*, I, pag. 233).

The caterpillar, at first sight, has some resemblance to a Limacodid larva. It has a length of ± 10 mM.; head and thorax are yellowish brown; body greyish brown, finely pilose with a black dorsal streak, bordered by white. Traces of a narrow, black, subdorsal line.

The caterpillars are to be found on the upperside of the leaves, feeding upon them and leaving the epidermis of the underside unattacked, thus causing brown spots which are very narrow (1—2 mM.) and generally not longer than 30 mM. When a tree is badly infested, these spots are so numerous, that nearly the whole surface of the leaves looks brown. Meanwhile the latter dry out and curl up, by doing so giving the caterpillars an excellent locality for pupation.

Generally the pupæ are to be found at the side op the veins of the leaflets, often in numerous rows. They are concealed under an oval-schaped, flat cocoon of brownish colour, which has an average length of 15 mM. and is woven by the caterpillar before it proceeds to pupate. After the moth has emerged the dry skin of the pupa is partly visible from under the cocoon.

The eggs are not yet known, but it is most probable that they are deposited on the leaves.

3. *Hidari irava*, Moore. Caterpillars of this butterfly of the Hesperid family were forwarded from Sawah Loento (West coast of Sumatra), where they occurred in great numbers, feeding upon the leaves of the coconut-tree. No details about this pest were given.

II. COTTON.

The following are the most common pests to cotton-culture in this country.

1. *Earias fabia*, Stoll., a small moth of the natural family *Arctiidae*, subfam. *Nycteolinae*. The caterpillar, which is very sparsely covered with hair, not only feeds among the rolled-up leaves, but also burrows into the ripening fruit, thus destroying the seeds.

2. The larvae of two small Tineid moths, which cannot yet be identified and probably are new to science, also feed upon the seeds.

3. *Heliothis armigera*, Hübn. The famous „cotton boll worm" of American cotton-planters occasionally may be found burrowing into the fruits, but happily is not frequent upon this plant, evidently preferring the young fruits of Indian corn, to which cereal it is very destructive here.

4. *Botys multilinealis.*, Guén. The caterpillars of this Pyralid moth are rather common upon the cotton-plant.

5. *Glyphodes indica*, Saund. A small moth belonging to the same family as the preceding one, the caterpillars of which will partially roll up and eat the leaves.

6. *Tectocoris cyanipes*, Fabr. Of this very common bug Snellen van Vollenhoven in his monograph of the *Scutelleridae*

of the Indian Archipelago describes not less than fourteen varieties, six of which occur in Java. All of these may occasionally be found upon cotton-plants (and other shrubs and trees of the natural family *Malvaceae*) but the most common one is the testacaous form.

The eggs are deposited in groups around the young twigs, each group containing from one hundred to two hundred eggs. The small larvae after hatching continue for some time on the same twig, piercing with their probosces into the green tissue and finally killing it.

7. *Dysdercus cingulatus*, FABR. This bug, which also is very common, attacks the immature seeds contained in the boll.

8. Chrysomelid beetles, belonging to the genera *Chalcolampra*, *Mysothra*, *Monolepta* e.a. are often found feeding upon the leaves, but generally they are not considered to do much harm.

9. *Ergolis ariadne*, L. The caterpillars of this butterfly were received from Demak in the Residency Semarang and reported to occur in great numbers on the cotton-leaves. As the ordinary foodplant of these insects is the „djarak" (*Ricinus communis*, L.) which is much cultivated by the natives in that country, it is very probable that after the harvest they removed from the *Ricinus* to the cotton.

III. UNCARIA GAMBIR.

1. *Pycanum rubens*, L. This big, reddish brown and more or less gold-shining bug was reported from Indragiri (East coast of Sumatra) as killing the tops of young twigs. In doing so, they proceed in the same way as e.g. several species of *Dalpada* do when attacking the coffee-tree, i.e. by provoking, in consequence of the irritation which is caused by the introduction of the proboscis into the bark, an abnormal affluence of feeding-sap, afterwards followed by fading and blackening of the leaves and finally by the death of the whole twig. The eggs of this bug are green, semi-transparent and oval-shaped. Their greatest length is 3,5 mM.

2. *Eumeta* spec. The very common and well known bagworms of this genus and probably of the species *variegata* Sn. were forwarded from the same place. They were reported to eat only the bark of the twigs; and specimens of the latter to which the insects were still attached showed their manner of operation. At numerous places the bark was entirely gnawed off.

It is a well known fact that the adult females of this group, which are wingless and nearly feetless, after the pupation do not leave the larval case, and after copulation with the winged males, lay their eggs in the same. The young caterpillars, when escaping, are already provided with a case, which probably is constructed from the silky tissue with which the inside of the maternal case is clad. They bear it quite erect and when it is taken off, which is very easily done, they keep their feetless abdomen in the same position, thus resembling tiny clowns walking on their hands.

IV. KIKXIA ELASTICA.

Glyphodes unionalis, Hueb. The caterpillars of this rather common Pyralid moth proved to be very destructive to *Kikxia*-trees in the Agricultural Gardens here; they also were received from an estate in Bantam (West-Java). Young trees were entirely defoliated and even the shoots and the green tops of the twigs were eaten.

The caterpillar is green, and in the full-grown state has a length of 35 mM. As in most Pyralid larvæ, the body is covered with many blackish brown chitinous specks, which in the present species are arranged as follows: on the first segment two elongated specks, transversely placed; on the second two circular specks, on the third four specks, in a transverse line; on the segments 4—11 six specks forming two laterally placed triangles; on the twelfth segment four specks in a transverse line; on the last segment two yellowish brown plates.

V. HEVEA BRASILIENSIS.

1. *Phytoscapha triangularis*, Oliv. and.
2. *Hypomeces squamosus*, F.

Both are Curculionid beetles of rather omnivorous habits, so that it is very probable that their occurrence in *Hevea*- plantations (whence they were reported as doing some damage to the leaves by eating the margins), is not to be considered of serious import. I observed these weevils also in plantations of *Cinchona*, *Palaquium*, tea etc., but in none of these they could be said to be really noxious.

3. *Orgya postica*, Wlk. The same can be said about the caterpillars of this moth, which were forwarded from a plantation near Bandjar (Preanger Regencies).

VI. MANIHOT UTILISSIMA.

1. *Monolepta quadrinotata*, F. A small Chrysomelid beetle, received from a plantation in the Residency Kediri. According to the manager these insects were not only destructive by eating away a good deal of the leaves, but also by the secretion of a fluid which caused brown specks and afterwards the death of the remaining ones. The eggs are laid in small groups on the leaves; they are of a dirty reddish brown colour. I had no opportunity to rear the larvæ.

2. *Lytta* spec. A not yet exactly determined species of the so-called Blisterbeetles, has caused considerable damage to the *Manihot*-plantations near Ngandjoek (Res. Kediri). It must be said, however, that they have also attacked other plants, as Indian corn, which were cultivaled in the neighbourhood of the *Manihot*-fields. A chemical analysis of the beetles was made in order to state wether they could be used for the production of cantharidine; but this did not prove to be a profitable affair.

VII. CAPSICUM ANNUUM.

1. *Dacus caudatus*, F. The maggots of this fly were found in great numbers feeding in the ripening fruits. They chiefly eat the fruit-flesh, leaving the seeds unattacked, but the latter, no longer being able to ripen, soon begin to grow putrid as finally the whole fruit does.

As it seems, the larvae of several species of this genus live by preferense in fresh fruit-flesh; I already observed them in the fruits of the mango, the coffee-tree, the *Nephelium*, the *Achras sapota* etc.

2. *Epilachna territa*, Muls.,
3. *Epilachna pusillanima*, Muls, and
4. *Epilachna pytho*, Muls.

These herbivorous Ladybirds, which have a great superficial resemblance to many of the carnivorous species of the same family, may often be found on cultivated plants of the family *Solanaceae*, such as tomato's, *Solanum melongena* (aubergine, brinjal), potatoes, *Capsicum* e.o.

The spinous larvae, which have some resemblance to small Limacodid catterpillars, also eat the leaves of these plants, but neither the beetles nor the larvae devour the leaves entirely; they only make a great number of small holes, but nevertheless the plants often suffer severely from this pest.

VIII. CAMPHORA OFFICINARUM.

Gracilaria spec. There are only a few plantations of the camphor-tree in Java, but as far as I know, all of these have been attacked by the small, leaf-mining caterpillar of a Tineid moth belonging to the genus *Gracilaria*. Even a solitary tree in the Agricultural Gardens here, and a similar one near the manager's house of the Government Gutta-percha Plantations in the Preanger Regencies, the latter at even more than a mile from a small plantation, have suffered from it.

After hatching from the eggs, the extremely small larva burrows into the leaf, mining under the epidermis and during the first days makes a very narrow passage, which is far less curved than is the case with other *Gracilaria*-larvae. Afterwards it makes a very broad cavity, sometimes as great as half the surface of the leaf, above which the epidermis is visible as a whitish vesicle. The latter by drying out, compels the leaf to partially curl itself up, so that the injury is a very peculiar one and easily recognizable, even at a long period after the full-grown larva has left its mine for pupation.

The insect by preference attacks young leaves, which for the greater part are destroyed by it, the mine drying out to a large brown patch, which looks as if it were burnt.

For the pupation, a well sheltered place is chosen either at the underside of a leaf or in a ridge of the bark. The pupa is protected by an oval-shaped flat cocoon of silky appearance, from which the moth escapes in the same way as in other *Gracilaria* species, by piercing it and leaving the skin of the pupa in the hole.

IX. CINCHONA.

Pachypeltis spec. The genus *Pachypeltis*, although closely allied to *Helopeltis*, may be immediately distinguished from the latter by the absence of the scutellar spine. In this country it is represented by several species, one of which has shown itself noxious to cinchona-trees in the same way as the well known „Mosquito-blight".

The insect is shiny black above with a yellow line one the scutellum and a yellow ring on the femora. The underside of the abdomen is creamy white with black markings.

X. PIPER NIGRUM.

1. *Elasmognathus* spec. Numerous specimens of an *Elasmognathus* species (family *Tingidae*), very much allied to *E. greeni*, Kirby, were received from Sintang (Borneo), where they are said to do some damage to the pepper plants.

Further details were not available, but it is very probable that the insects have proceeded in the same way as the above named, Ceylonese species of which Mr. E. E. Green, the well-known entomologist of that country, writes (as quoted in the „Fauna of Britisch India", *Rhynchota*, Vol. II, pag. 142): This species punctures the leaves of the cultivated pepper-vine (*Piper nigrum*). It makes the leaves look spotted with brown along the lines of the main veins but does not appear to seriously injure the health of the plant. The insect feeds on the under surface of the leaf. It occurs both on cultivated und wild pepper throughout Ceylon.

2. *Pelargoderus bipunctatus*, DALM. The larvae of this Cerambycid beetle, which is not uncommon here, have been found boring in the oldest branches of the pepper-vine.

XI. FICUS ELASTICA.

1. *Batocera albofasciata*, DE GEER. The larvae of this very common Cerambycid beetle have a strongly developped preference for the *Ficus*-trees, to which they often do damage to a considerable degree. It is remarkable that this species is far more exclusive than the allied *Batocera hector*, DEJ. the larvae of which have been found in the dadap (*Erythrina* spec.), the nutmegtree, the Kapok (*Eriodendron anfractuosum*) and many others.

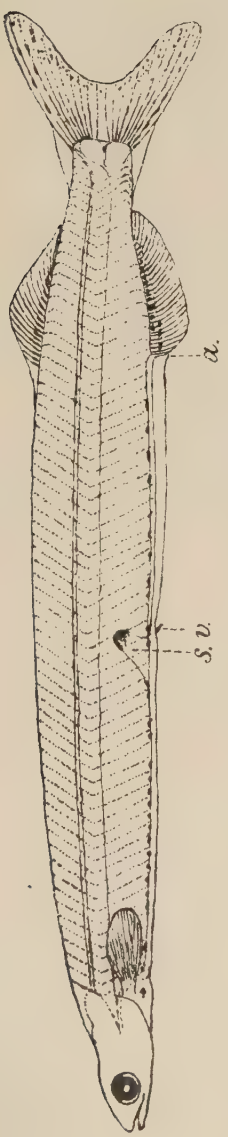
2. *Epepeotes luscus*, FABR. Noxious in the same way as the foregoing species but much less common. This beetle has also been reared from larvae in the *Castilloa elastica*.

J. C. KONINGSBERGER.

Buitenzorg, *July 1908*.

KURZE NOTIZEN UEBER FISCHE DES JAVA-MEERES. [1])

3. DIE LARVE VON MEGALOPS CYPRINOIDES Brouss.



Larve von *Megalops cyprinoides* Brouss. × 6.
a = After, *s* = Schwimmblase, *v* = Ventralflosse.

In seiner systematischen Beschreibung der Teleosteer in „The Cambridge Natural History" (1904) giebt Boulenger eine Abbildung der Larve von *Albula conorhynchus* („after Gilbert"). Er fügt hinzu, dass „Prof. Gilbert has ascertained that the young pass through a metamorphosis, analogous to that of the Eels", und bemerkt, dass das von Kaup beschriebene Genus *Esunculus* wahrscheinlich auf *Albula*-larven gestützt sei. In der Tat zeigt die Larve einige Analogie mit den *Leptocephali* und ist sie äusserlich sehr verschieden vom erwachsenen Tiere.

Abbildungen mehrerer Stadien derselben Larve findet man bei Gill [2]) („after Gilbert and Jordan, Mss."), mit dem Zusatz: „A brief notice of Prof. Gilbert's observations was communicated to Jordan and Evermann (I, 411), but Prof. Gilbert has informed the writer that his results are still unpublished", und ferner: „The writer is indebted to Professor Gilbert for a proof of the accompanying figure which is to be published in President Jordan's great forthcoming work on fishes."

Dies ist alles was ich über die interessante Larve finden kann. Das Buch von Jordan ist mir nicht zugänglich, aber eine ausführliche Beschreibung der Larve scheint noch nicht publizirt zu sein.

1) Die beiden ersten Notizen sind aufgenommen im: Natuurk. Tijdschr. Ned.-Indië, dl. LXVII, 1908.

2) Smithsonian Miscellaneous Collections, Vol. III, Pt. I, 1905, p. 43.

Im Monat Januar kommen im brackischen Wasser des Hafenkanales von Batavia Fischlarven vor (s. die Abbildung), die denen von *Albula* sehr ähnlich sind, jedoch nicht zu diesem Genus gehören können, sondern aus später zu eruierenden Gründen mit grosser Wahrscheinlichkeit als Larven von *Megalops cyprinoides* Brouss. betrachtet werden müssen. Die Totallänge der von mir gesammelten Larven variiert von 23 bis 30 mm. (gemessen in formol), doch scheinen sie alle auf derselben Entwickelungsstufe zu stehen. Ältere Stadien habe ich bis jetzt nicht auffinden können und die Zucht der Larven ist mir nicht gelungen.

Der Körper der Larve ist bandförmig. Ein Tier von 25 mm. Totallänge (22 mm. ohne Schwanzflosse) hat eine Höhe von 3 mm. Das Tier ist vollkommen durchscheinend; im Leben treten nur die Augen und die Schwimmblase deutlich hervor.

Die Flossen, mit Ausnahme der Ventralflossen, sind schon wohl entwickelt und viel grösser als beim jüngsten der von Gill abgebildeten Stadium, das sonst am meisten mit der Larve von Batavia übereinstimmt. Rücken- und Afterflosse liegen noch weit hinten, erstere etwas vor, aber grössenteils über der letzteren. Die Rückenflosse hat 18 Strahlen und davor befinden sich offenbar noch ein oder mehr unausgebildete; der letzte Strahl ist etwas länger als der vorhergehende und weist somit schon eine Andeutung des Filamentes des erwachsenen *Megalops* auf. Die Analflosse besitzt 27 Strahlen, die Caudalflosse 20, von denen von jedem hypurale 10 getragen werden. Die kleinen Randstrahlen der Schwanzflosse sind nur noch in der ersten Anlage sichtbar. Die Bauchflossen sind noch äusserst klein und liegen in der Mitte des Körpers.

Von den inneren Organen tritt besonders die kleine Schwimmblase hervor. Im Leben ist sie als ein glänzendes Pünktchen zu erkennen. Sie liegt über den Ventralflossen.

Es sind etwa 69 Muskelsegmente vorhanden, von denen 48 oder 49 auf den Rumpf (zwischen Bauchflosse und After 22), 20 oder 21 auf den Schwanz kommen.

An der ventralen Spitze der meisten Myotome liegt eine Chromatophore. Ueberdies giebt es kleinere Chromatophoren längs den oberen und unteren Schwanzflossenstrahlen und längs dem hinteren Rande dieser Flosse. Über der Schwimmblase liegt eine pigmentirte Kappe.

An einem Methylenblaupräparat einer Larve von 30 mm.

Länge lässt sich erkennen, dass ausser dem Cranium die Basalia der Brustflossen und die Flossenstrahlträger aller unpaarigen Flossen sich im knorpligen Zustande befinden, die Wirbelsäule jedoch noch nicht. Die Strahlträger der Rücken-und Afterflosse bestehen aus zwei Stücken, von denen die distalen (baseoste) klein und kuglig sind.

Die grosse Zahl der Strahlen der Analflosse macht es unmöglich, dass die beschriebenen Larven zu *Albula conorhynchus* gehören, welche deren nur 9—10 besitzt. Dagegen stimmt die Zahl gut überein mit dem verwandten *Megalops cyprinoides* (Analstrahlen 23—28), während es auch bei *Elops saurus* weniger giebt (15—17). Andere nah verwandte Arten giebt es im Archipel nicht. Ich glaube daher die Larve mit ziemlicher Gewissheit zur genannten Art von *Megalops* bringen zu können und werde hierin noch gestützt durch die Tatsache, dass diese Art die einzige der oben erwähnten ist, die im erwachsenen Zustande ziemlich häufig im Hafenkanale von Batavia gefangen wird.

P. N. van Kampen.

ZUR LEBENSWEISE VON

EONYCTERIS SPELAEA, Dobs.

In den letzten Monaten des Jahres 1907 blühten in unserm Garten eine Anzahl Agaven, deren dicht aneinander gedrängte Blumen mit besonders hervortretenden Staubgefässen ausgezeichnet waren. Diese Blumen wurden allabendlich von zahlreichen Fledermäusen besucht. In schnellem und gewandtem Fluge umschwärmten sie die blühenden Agaven, sich ab und zu, aber stets nur für wenige Augenblicke, auf die Blumen niederlassend. Unter mehreren der Fledermäuse, welche ich erlegte und die sämtlich der obigen Art angehörten, befand sich nur ein, allerdings erst spät abends erlegtes Exemplar, dessen Magen gut gefüllt war.

Herr Dr: Valeton, Chef vom Herbarium des Botanischen Gartens in Buitenzorg hatte die Freundlichkeit diesen Magen zu untersuchen und fand darin zu meiner nicht geringen Ueberraschung nur Blütenstaub. Natürlich war es mir jetzt erklärlich, weshalb die Fledermäuse jeden Abend zu den mit Blütenstaub so reich gesegneten Agaven, von denen sie sich weder durch Schüsse noch durch eine in der Nähe aufgestellte Lampe verscheuchen liessen, zurückkehrten.

Nach meiner Ansicht geht aus diesen Beobachtungen zur Genüge hervor, dass Blütenstaub jedenfalls die Hauptnahrung von *Eonycteris spelaea* bildet und ist diese Fledermaus zweifellos mit einer so besonders langen Zunge ausgerüstet, um auch von Blumen mit weniger hervortretenden Staubgefässen ihre Nahrung aufnehmen zu können.

Pasir Datar, im Juli 1908. M. Bartels.

ZUM VORKOMMEN DER TUEPFELKATZE

(FELIS VIVERRINA, Benn.) AUF JAVA.

Vor einigen Jahren erstand ich bei einem Kürschner in Batavia das Fell einer grossen, mir unbekannten Wildkatze die ich ohne Schwierigkeit als *Felis viverrina* bestimmen konnte. Nach Aussage des Verkäufers sollte dieselbe in der Umgegend von Batavia erbeutet sein; da die Tüpfelkatze jedoch bisher noch nicht auf Java gesammelt war und mir die Mitteilung des Verkäufers allein nicht genügte, die interessante Art in die Fauna Javas einzuführen, bemühte ich mich, erst noch mehr Exemplare zu erhalten. Hierin wurde ich in liebenswürdigster Weise von Herrn Dr. P. N. van Kampen, Assistent an der Fischerei-Station in Batavia unterstützt, dessen eifrigen Bemühungen es auch wirklich gelang, das noch ziemlich frische Fell eines in der Umgegend vom Kampong (Dorf) Boegis in Krawang erlegten zweifellos ausgewachsenen Exemplares zu erhalten. Ferner vernahmen wir von einigen Fischern, dass die Tüpfelkatze in den sumpfigen Küstenstrichen von Krawang eine allgemein bekannte Erscheinung sei und von den Bewohnern dieser Gegenden *Oetjing mèmèng* genannt wurde (*Oetjing* = Katze).

Muss man nun auch, wie ich wiederholt erfahren habe, mit Angaben von Eingeborenen stets sehr vorsichtig sein, so ist es doch durch das von Herrn Dr. van Kampen erhaltene Fell zur Genüge bewiesen, dass *Felis viverrina* wirklich in den Sumpfwildnissen östlich von Batavia vorkommt.

Pasir-Datar, im Mai 1908. M. Bartels.

Nachschrift: Im Begriff obige Mitteilung zu veröffentlichen machte ich zufällig die Bekanntschaft des gegentwärtig in Batavia wohnenden Herrn Dr. V. A. Petkovic, eines sehr enthusiasmierten Tierfreundes, in dessen Besitz sich neben vielen anderen lebenden Tieren auch ein ganz prachtvolles, in der Umgegend von Batavia gefangenes Exemplar der Tüpfelkatze befindet, welches genannter Herr der K.K. Menagerie in Schönbrunn bei Wien zu schenken beabsichtigt.

B.

LIST OF JAVA SNAKES

IN THE

BUITENZORG ZOOLOGICAL MUSEUM.

Fam. TYPHLOPIDAE.

1. *Typhlops braminus*, DAUD. (common)
2. *Typhlops lineatus*, SCHL. (not very common)

Fam. BOIDAE.

3. *Python reticulatus*, SCHNEID. (common)
4. *Python molurus*, L. (not uncommon in forest and thick jungle, aggressive)

Fam. ILYSIIDAE.

5. *Cylindrophis rufus*, LAUR. (not uncommon in lower countries)
6. *Cylindrophis melanotus*, BOIE (rare)

Fam. XENOPELTIDAE.

7. *Xenopeltis unicolor*, REINW. (not very common)

Fam. COLUBRIDAE.

Series A. **Aglypha.**

8. *Calamaria linnaei*, SCHL. (common)
9. *Calamaria maculata*, BOIE (not common)
10. *Calamaria tesselata*, BOIE (common)
11. *Calamaria reticulata*, BOIE (common)
12. *Calamaria multipunctata*, BOIE (not common)
13. *Calamaria lumbricoidea*, BOIE (not common)
14. *Calamaria virgulata*, BOIE (a mountain form)
15. *Calamaria elapoides*, BOIE (a mountain form)
16. *Calamaria* sp.
17. *Elapoides fuscus*, BOIE (not uncommon at an elevation of about 2000 feet)

18. *Oligodon bitorquatus*, Boie (rather rare)
19. *Lycodon aulicus*, L. (common)
20. *Lycodon subcinctus*, Boie (not common, young specimens have a remarkable resemblance to the *Bungarus*-species)
21. *Polyodontophis geminatus*, Boie (rare; the variety with the broken dorsal stripe is still rarer)
22. *Ablabes baliodirus*, Boie (rare)
23. *Xenodon purpurascens*, Schl. (rare)
24. *Simotes octolineatus*, Schn. (in the higher regions, but not common)
25. *Simotes fasciolatus*, Günth. (in the plains, not common)
26. *Zamenis mucosus*, L. (rare, not yet known from West-Java)
27. *Zamenis korros*, Schl. (common)
28. *Coluber melanurus*, Schl. (common)
29. *Coluber radiatus*, Schl. (at higher elevations, not common)
30. *Coluber oxycephalus*, Boie (common)
31. *Coluber tricolor*, Schl. (very rare)
32. *Dendrophis formosa*, Reinw. (rare)
33. *Dendrophis pictus*, Gm. (common)
34. *Tropidonotus piscator*, Schn. (not common)
35. *Tropidonotus chrysargus*, Schl. (rare)
36. *Tropidonotus trianguligerus*, Schl. (common)
37. *Tropidonotus quincunciatus*, Schl. (common in the plains)
38. *Tropidonotus leucomelas*, Günth. (in the plains, rare)
39. *Tropidonotus vittatus*, L. (very common)
40. *Tropidonotus subminiatus*, Schl. (common)
41. *Macropistodon rhodomelas*, Boie (in West-Java rare, eastwards not uncommon)
42. *Xenodermus javanicus*, Schl. (very rare)
43. *Acrochordus javanicus*, Schl. (rather common in the lower countries)
44. *Chersydrus granulatus*, Schn. (rare)

Series B. **Opistoglypha.**

45. *Dipsadomorphus cynodon*, Boie (rare)
46. *Dipsadomorphus dendrophilus*, Boie (common)
47. *Dipsadomorphus drapiezii*, Schl. (rare)
48. *Dipsadomorphus multimaculatus*, Schl. (at higher elevations not uncommon)
49. *Psammodynastes pulverulentus*, Günth. (at higher elevations, not common)
50. *Dryophis prasinus*, Boie (common)
51. *Dryophis fasciolatus*, Fisch. (at higher elevations, not common)
52. *Chrysopelea ornata* Shaw (rare)
53. *Homalopsis buccata*, L. (common)
54. *Cerberus rhynchops*, Schn. (in the neighbourhood of the sea not rare)
55. *Hypsirhina enhydris*, Schn. (not common)
56. *Hypsirhina plumbea*, Boie (in the neighbourhood of the sea, but not common)

Series C. **Proteroglypha.**

57. *Doliophis intestinalis*, Boie (common)
58. *Doliophis bivirgatus*, Boie (at high elevations, not common)
59. *Doliophis* sp.
60. *Bungarus fasciatus*, Schn. (common)
61. *Bungarus candidus*, L. (common)
62. *Naia tripudians*, var. *sputatrix*, Reinw. (rather common)
63. *Naia tripudians*, var. *leucodira*, Blgr. (rare)
64. *Naia bungarus*, Schl. (rare)

Fam. AMBLYCEPHALIDAE.

65. *Haplopeltura boa*, Boie (rather common)
66. *Amblycephalus carinatus*, Kühl (rather common)
67. *Amblycephalus laevis*, Boie (rare)

Fam. VIPERIDAE.

98. *Lachesis punicea*, Boie (common)

69. *Lachesis graminea*, SHAW (rare)
70. *Ancistrodon rhodostoma*, BOIE (locally common)

(The notations about the frequency of the above named snakes chiefly refer to the surroundings of Buitenzorg and Sukabumi).

P. A. OUWENS.

Buitenzorg, *Aug. 1908.*